



Introduction TriplyDB

Kinsuk Sinha & Wouter Beek



Timetable

15:00	Welcome & introductions [10]
15:10	Organise & Publish [25] Kinsuk
15:35	Navigate Data & Data Model [25] Kinsuk
16:00	Break [10]
16:10	Query Data [25] Wouter
16:35	Create a Data Story [20] Wouter
16:55	Evaluatie en afsluiting [5]
17:00	End

Organise & Publish

Access levels

- **Datasets/Queries/Stories:**
 - **Private:** available to you or your organisation
 - **Internal:** available to logged in users
 - **Public:** available to anyone online
- **Organisation members**
 - Member
 - Owner
- **User**
 - Regular
 - Admin

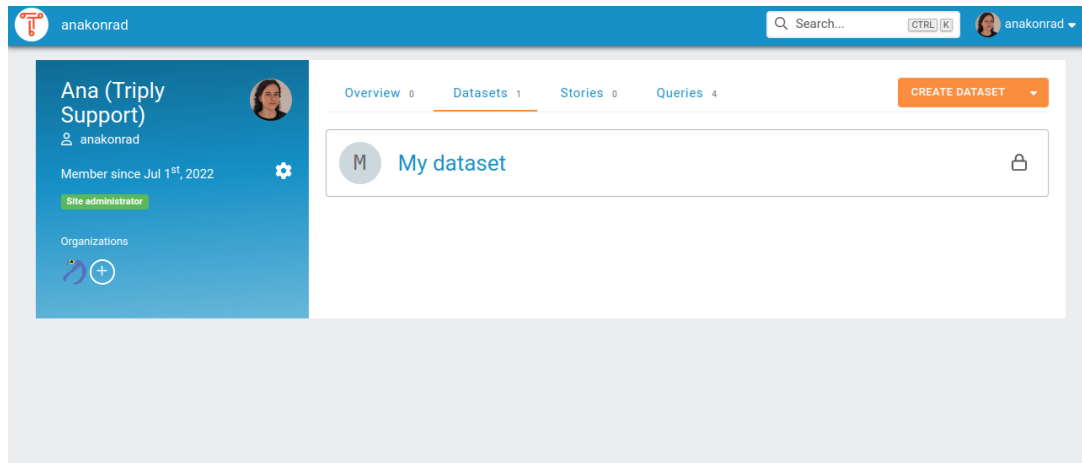
Common scenarios:

- **Private:** Work on a private dataset.
- **Internal:** Show your work to the rest of company.
- **Public:** Publish open data.

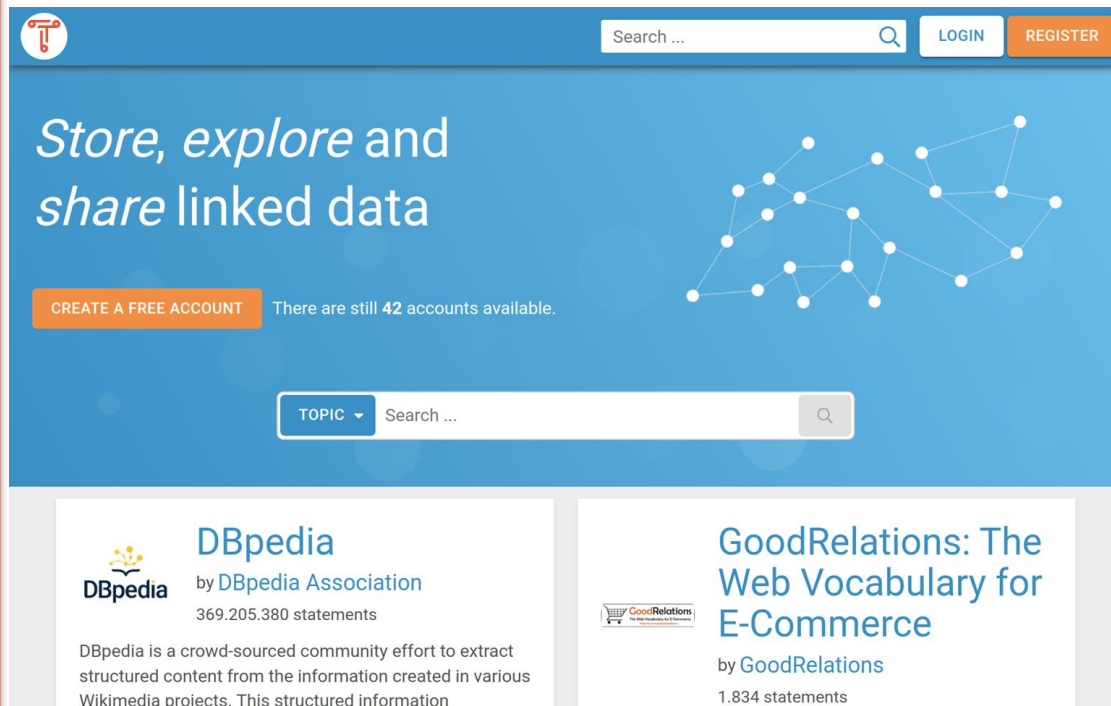
I want to work on a dataset individually

What we will do:

- ☐ **Log in.**
- ☐ **Add** a dataset.
- ☐ **Upload** data.
- ☐ Set the access level to "**Private**".



Log into your TriplyDB instance



The screenshot shows the TriplyDB homepage. At the top, there is a blue header with the Triply logo on the left, a search bar in the center, and 'LOGIN' and 'REGISTER' buttons on the right. Below the header, the main content area has a blue background with the text 'Store, explore and share linked data' on the left and a network graph visualization on the right. A 'CREATE A FREE ACCOUNT' button is visible, along with a message 'There are still 42 accounts available.' Below this, there is a search bar with a 'TOPIC' dropdown and a search icon. At the bottom, there are two featured datasets: 'DBpedia by DBpedia Association' with 369,205,380 statements and 'GoodRelations: The Web Vocabulary for E-Commerce' by GoodRelations with 1,834 statements.

Store, explore and share linked data

CREATE A FREE ACCOUNT There are still 42 accounts available.

TOPIC Search ...

DBpedia
by DBpedia Association
369.205.380 statements
DBpedia is a crowd-sourced community effort to extract structured content from the information created in various Wikimedia projects. This structured information

GoodRelations: The Web Vocabulary for E-Commerce
by GoodRelations
1.834 statements

- Email and password
- SAML connection (e.g. Azure Active Directory, eHerkenning)

Add a dataset




Dataset name

Display name (optional)

Description (optional)

WRITE

PREVIEW

-  Private
This dataset is only visible to members of this organization (and administrators)
-  Internal
Any logged-in user can view and query this dataset
-  Public
Anybody can view and query this dataset

Add dataset

Cancel

- Metadata: name, description
- Access level: private, internal, public
- Google indexing (Schema.org metadata)

Upload data*

Add data

Add data from an existing dataset

OR

Add data from a URL

OR



Add data from files (Turtle, TriG, N-Triples, N-Quads)

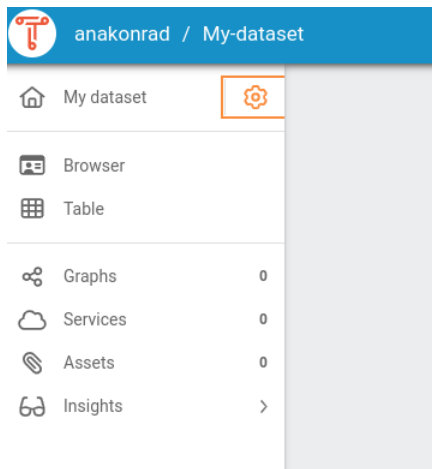
- Add data from:
 - Existing dataset
 - Remote URL
 - Local file
- Formats:
 - N-Quads
 - N-Triples
 - TriG
 - Turtle
 - JSON-LD
 - CSV
 - RDF/XML

Do it yourself

1. Go to your user account and create a dataset.
2. Upload either of the following:
 - a. Your own RDF file(s)
 - b. Your own CSV file (e.g. from the web)
 - c. An open RDF dataset from the web:
<https://triplydb.com/Triply/iris/download.trig.gz>

Scenario 1: Work on a dataset individually (**private**)

Go to dataset settings



Update dataset profile

Dataset name

My dataset

<https://triplydb.com/anakonrad/My-dataset> 

M

UPLOAD NEW AVATAR

Dataset description

WRITE

PREVIEW

Access level

 Private

This dataset is only visible to you (and administrators)

 Internal

Any logged-in user can view and query this dataset

 Public

Anybody can view and query this dataset

Topics

Add a topic

Type to search

Example resources

Add an example resource

Type to search

License

None 

Scenario 2: Show your work to the rest of company (**internal**)

Add a dataset **description** (findability)



Set the access level to "**Internal**"



Update dataset profile

Dataset name

My dataset

https://triplydb.com/My-organization/My-dataset

Dataset description

WRITE

PREVIEW

Access level

Private

This dataset is only visible to members of this organization (and administrators)

Internal

Any logged-in user can view and query this dataset

Public

Anybody can view and query this dataset

Topics

Add a topic

Type to search

Example resources

Add an example resource

Type to search

License

None

M

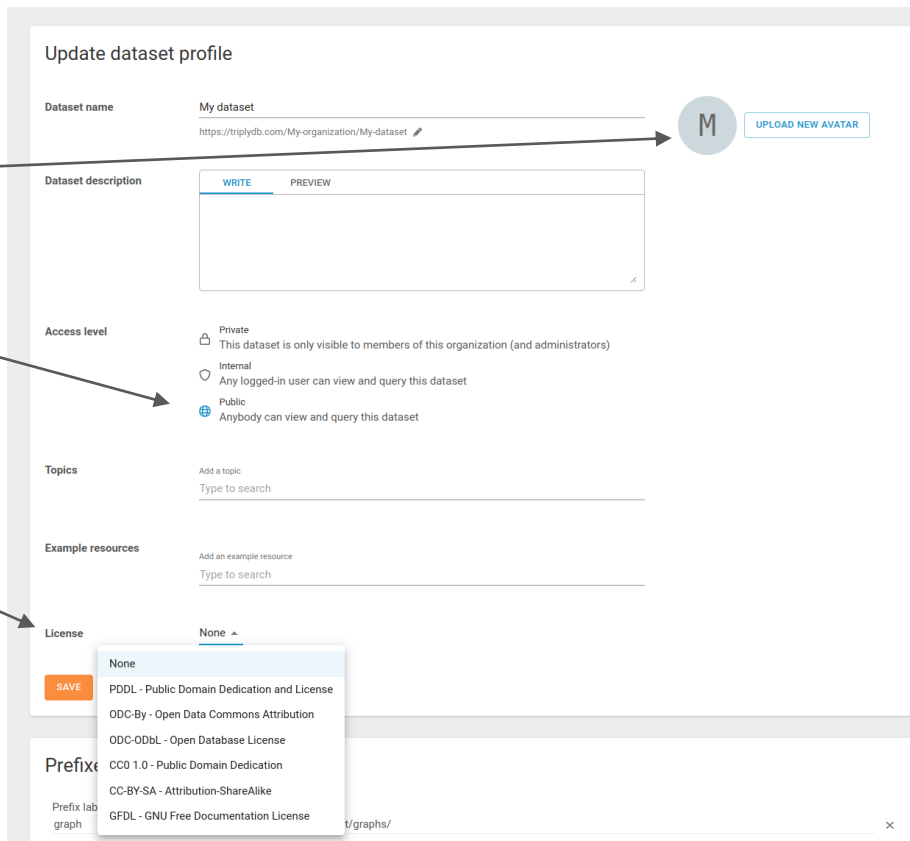
UPLOAD NEW AVATAR

Scenario 3: Publish open data (**public**)



Upload a dataset **image**.

Set the access level to "**Public**".

Add a **licence**.



Update dataset profile


Dataset name  [UPLOAD NEW AVATAR](#)
<https://triplydb.com/My-organization/My-dataset> 

Dataset description WRITE PREVIEW

Access level ☒ **Public**
 Private: This dataset is only visible to members of this organization (and administrators)
 Internal: Any logged-in user can view and query this dataset
 Public: Anybody can view and query this dataset

Topics
 Type to search

Example resources
 Type to search

License None 

- None
- PDDL - Public Domain Dedication and License
- ODC-By - Open Data Commons Attribution
- ODC-ODbL - Open Database License
- CC0 1.0 - Public Domain Dedication
- CC-BY-SA - Attribution-ShareAlike
- GFDL - GNU Free Documentation License

[SAVE](#)

Prefix

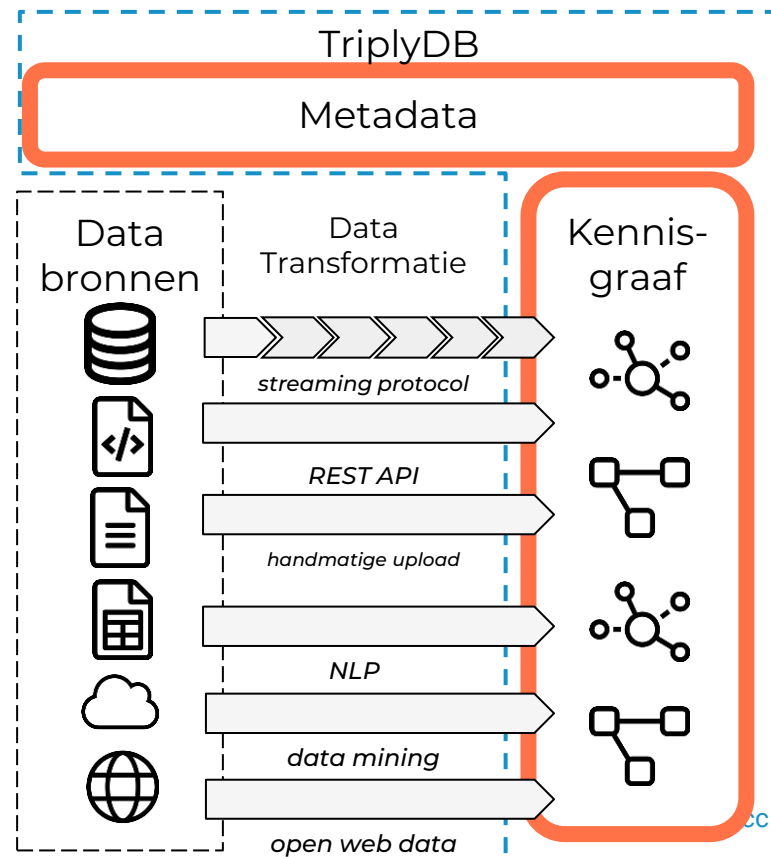
[/graphs/](#)

Automate data publication

Automate data publication:

- Upload files (**TriplyDB.js**)
- Publish data from a pipeline (**TriplyETL**)
- Secure handover (**API Token**)
- External applications (**Web Hooks**)

See <https://triply.cc/docs>



Navigate Data

LD Table ([visit](#))

Subject	Predicate	Object	Graph
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="https://triplydb.com/tripl..."/> ×
floweringPlant:00001	qb:dataSet	dataSet:iris	iris:instances
floweringPlant:00001	rdf:type	dbo:Iris_setosa	iris:instances
floweringPlant:00001	rdfs:label	Instance 1 of the Iris Setosa	iris:instances
floweringPlant:00001	dimension:variety	dbr:Iris_setosa	iris:instances
floweringPlant:00001	measure:petalLength	1,4	iris:instances
floweringPlant:00001	measure:petalWidth	0,2	iris:instances
floweringPlant:00001	measure:sepalLength	5,1	iris:instances
floweringPlant:00001	measure:sepalWidth	3,5	iris:instances

- Subject, predicate, object, graph
- Prefix declarations (double click)

- Drag & Drop (subject ↔ object)
- Statements API (URL arguments)

LD Browser ([visit](#))

< Iris versicolor

Iris versicolor is also commonly known as the blue flag, harlequin blueflag, larger blue flag, northern blue flag, and poison flag, plus other variations of these names, and in Britain and Ireland as purple iris. It is a species of Iris native to North America, in the Eastern United States and Eastern Canada. It is common in sedge meadows, marshes, and along streambanks and shores. The specific epithet versicolor means "variously coloured".



Type



flowering plant

Comment

Iris versicolor is also common or means "variously coloured".

Label

Iris versicolor

Iris versicolor

Depiction

<https://triplydb.com/Triply/iris/assets/600844e8c826e6033db18beb>

DBpedia class

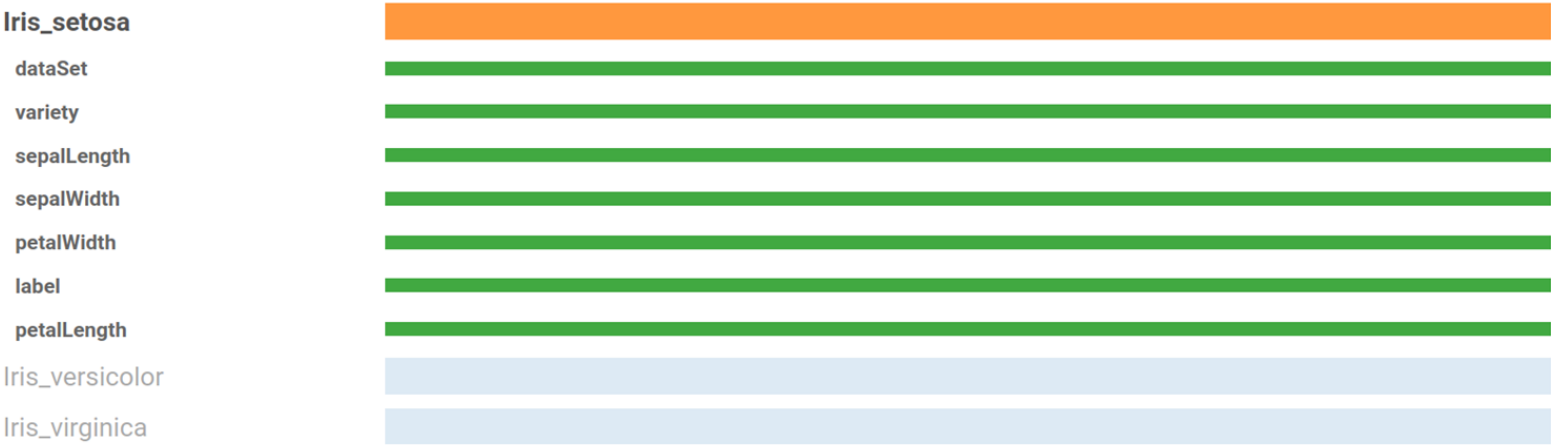
[Iris versicolor](#)

Average petal length

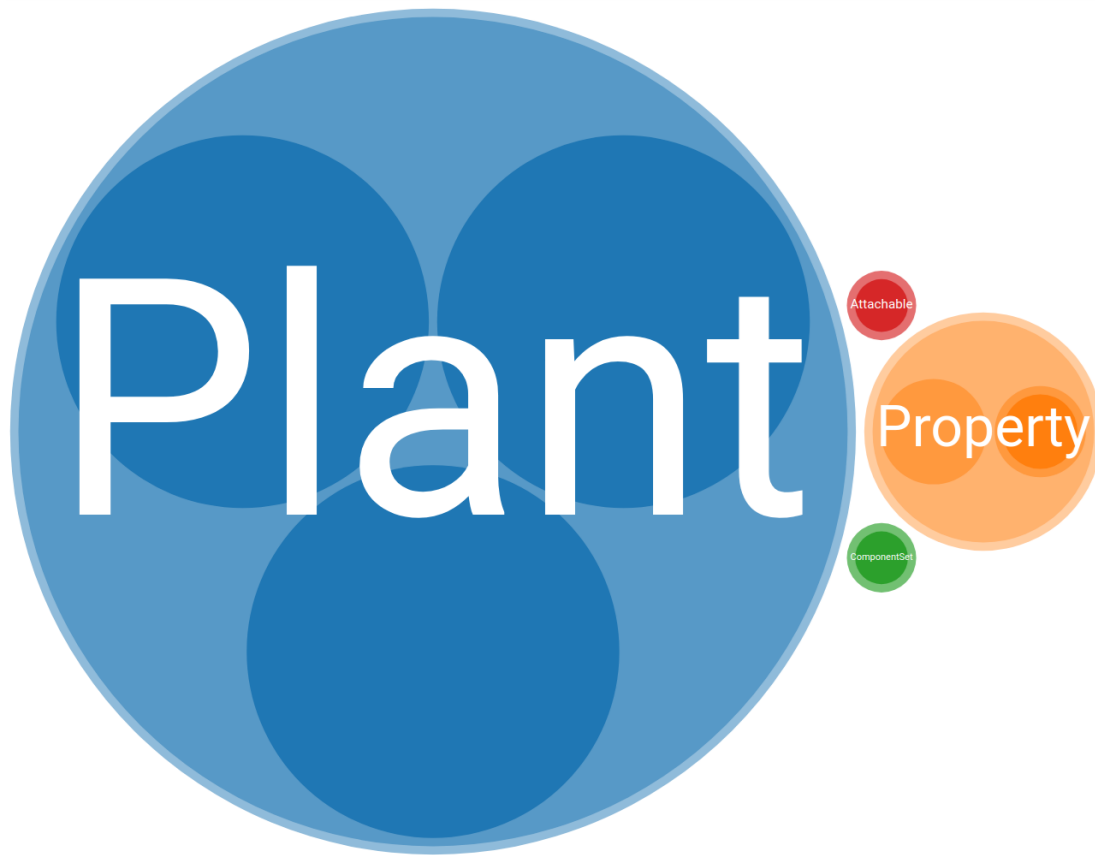
4,26

LD Insights: Class Frequency ([visit](#))

▼

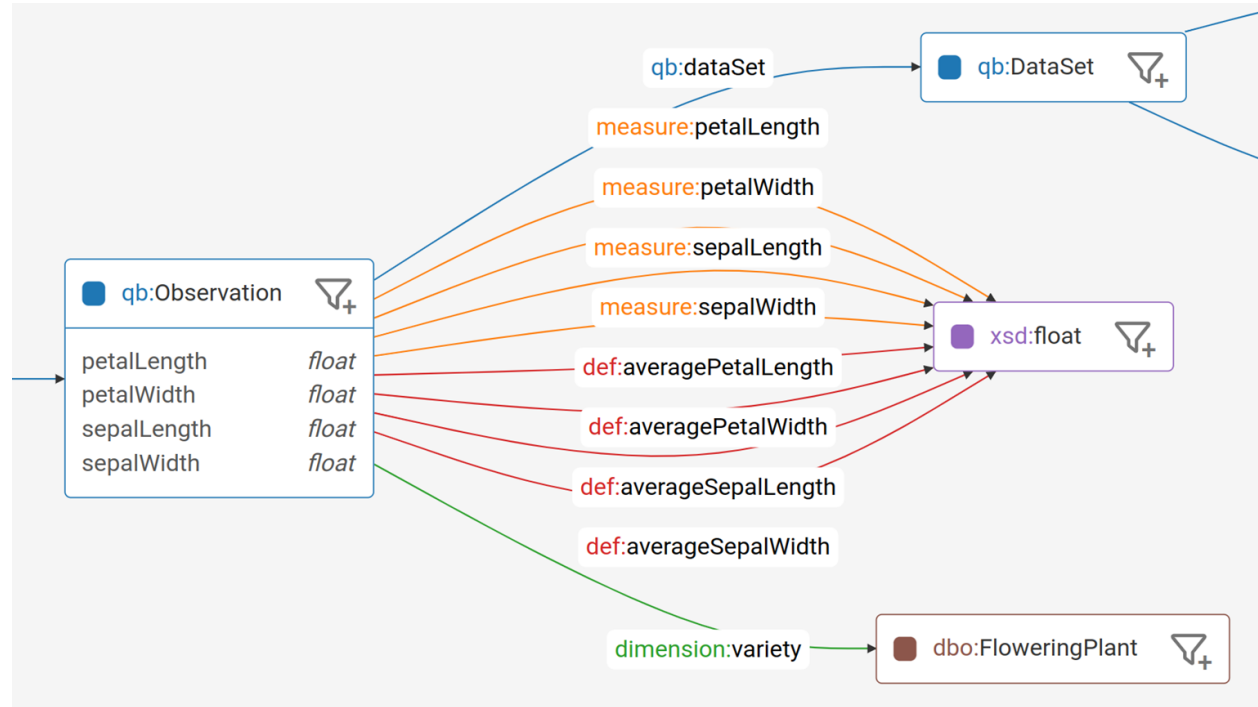


LD Insights: Class Hierarchy ([visit](#))



LD Insights: Model (beta) ([visit](#))

- Classes
 - Hierarchy
- Properties
 - Datatype properties
 - Object properties
- SHACL shapes
 - Node shapes
 - Property shapes



Do it yourself

- Look at your own data in LD Browser.
- Follow an *outgoing* link in your data.
- Follow an *incoming* link in your data.
- Obtain one insight based on your data (LD Insights).

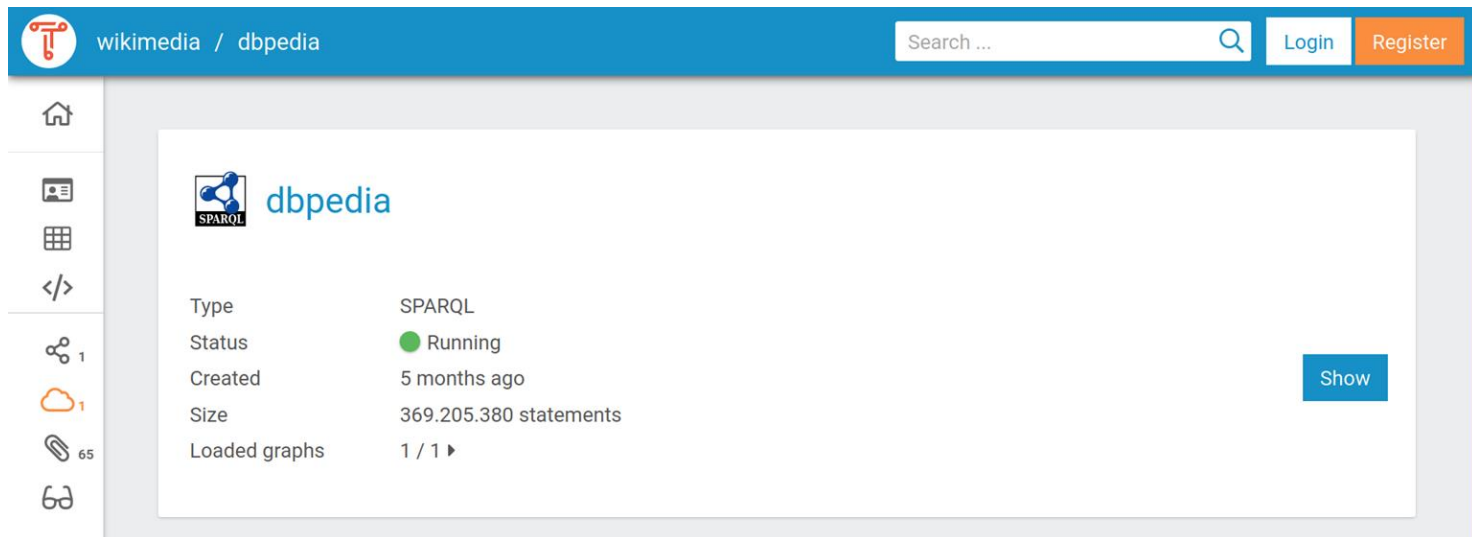
Example IRIs for LD Browser:

- http://dbpedia.org/resource/Iris_setosa
- http://dbpedia.org/resource/Iris_versicolor
- http://dbpedia.org/resource/Iris_virginica

Break (terug om 16:10)

Querying Data in TriplyDB

Start a service



The screenshot shows the Triply web interface. At the top, there is a blue header bar with the Triply logo, the text 'wikimedia / dbpedia', a search bar, and 'Login' and 'Register' buttons. On the left side, there is a vertical sidebar with icons for home, user profile, grid, code editor, and other services. The main content area displays a service card for 'dbpedia'. The card includes a SPARQL icon and the following details:

Type	SPARQL
Status	● Running
Created	5 months ago
Size	369.205.380 statements
Loaded graphs	1 / 1 ▶

A 'Show' button is located to the right of the service details.

- Service types: SPARQL, Jena, ElasticSearch
- Services are decoupled
- Use multiple services for load-balancing

Triply B.V. | triplly.cc

Configure a visualisation: network ([visit](#))



Create a query

Create query

Name

Display name (optional)

Dataset (with SPARQL service)

☒ Always use the most up-to-date SPARQL service available.

Description (optional)

WRITE

PREVIEW



Private

This query is only visible to you (and administrators)



Internal

Any logged-in user can view and run this query



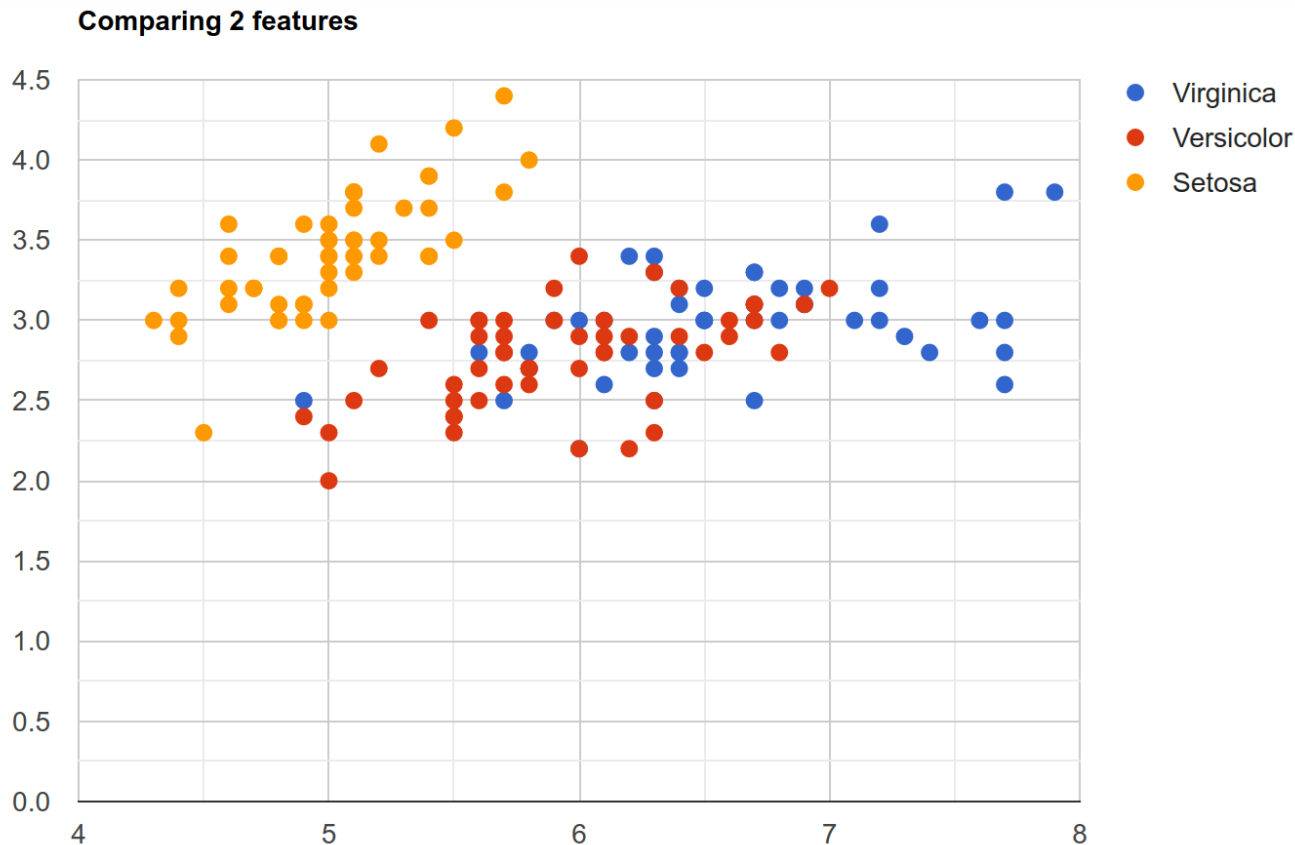
Public

Anybody can view and run this query

Create query

Cancel

Configure a visualization: plots ([visit](#))





Do it yourself

Create a SPARQL query:

- Create a SPARQL service
- Create a query
- Add a visualization


[FYI] Add an API variable



Triply / queries / Comparing-2-features





Comparing 2 Features

By [Triply](#)




Created	2 years ago
Modified	12 minutes ago
Versions	10
Dataset	Triply / iris 
Service	iris

Version: 10 




API  GET: https://api.triplydb.com/queries/Triply/Comparing-2-features/run?feature_1=&feature_2=


Variables 

Feature_1


Sepal length (default)



Feature_2



Sepal width (default)




[View populated query](#) 

Query URL

API Variables

[FYI] Add an API variable ([link](#))


Triply / queries / Comparing-2-features

CTRL K
 wouter

Update variable

Variable name

Type of variable

Literal with language tag

Language

☐ Variable is required

Default value

Allowed values

+

≡	Sepal length	×
≡	Sepal width	×
≡	Petal length	×
≡	Petal width	×

UPDATE VARIABLE

CANCEL

Table

Response

Gallery

Chart

Geo

Geo-3D

Geo events

Markup

Network

Pivot

Timeline

150

100

200

300

400

500

600

700

800


900

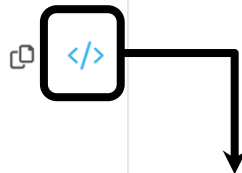
1000


[FYI] Open your query in a different environment


Version: 10 ▶


API GET: <https://api.trplydb.com/queries/Triply/Comparing-2-features/run?>

Variables 




Triply / queries / Comparing-2-features

 Search...

 wouter ▼

Created 2 years ago
Modified 18 minutes ago


Code snippets

PYTHON
R

```

import requests, json
url = "https://api.trplydb.com/queries/Triply/Comparing-2-features/run?pageSize=10000"
response = requests.get(url)
data = response.json()

```

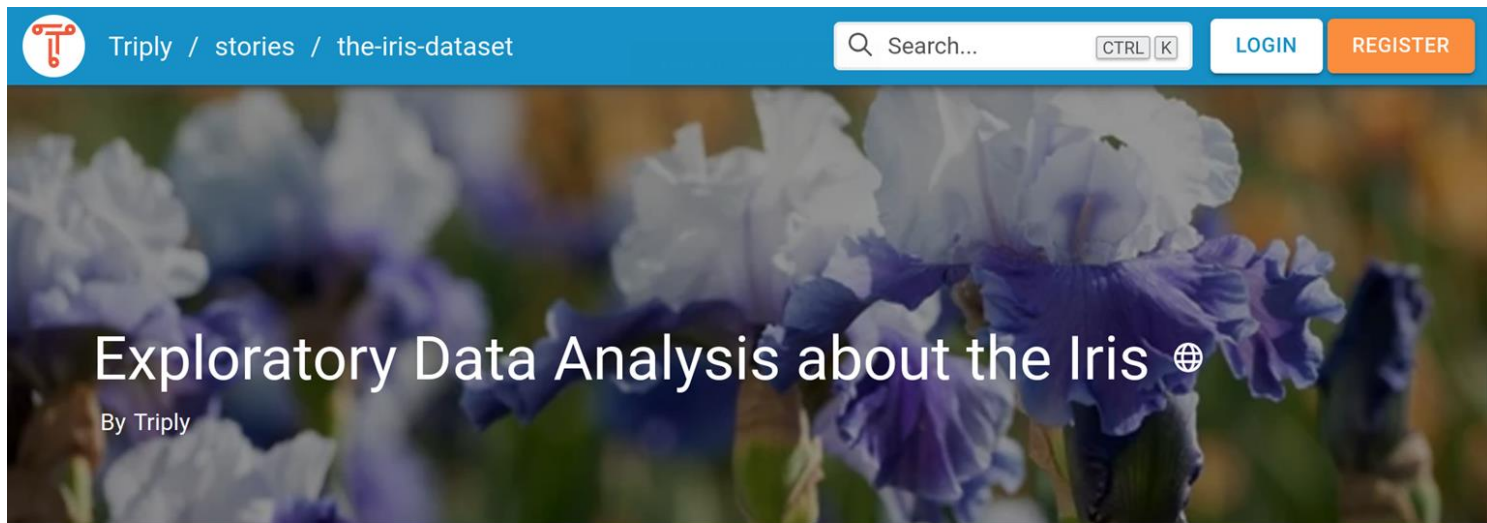
 COPY TO CLIPBOARD
CLOSE

Do it yourself

- Create a query with an API variable.

Create a Data Story

Create a Data Story ([link](#))



In this datastory, we are conducting an exploratory analysis on [Iris](#) dataset. Iris flower dataset has information on the three related species of Iris flowers in order for quantification of their morphologic variation. Below, there are several tables using SPARQL queries that show variations between and within the Iris flower species.

The table below (Table 1) shows petal and sepal information about the first five instances in Iris dataset. Also, the datatypes are mentioned next to the values.

Add paragraph ([link](#))

Triply / stories / the-iris-dataset
Search... CTRL K wouter

Add new story element

- ☒ Paragraph
- ☐ Existing query
- ☐ Create new query

Paragraph

WRITE
PREVIEW

Write text in the **Markdown** format.

```

mermaid
graph LR
  person:John -- foaf:knows --> person:Mary

```

CREATE STORY ELEMENT
CANCEL

Add new story element

- ☒ Paragraph
- ☐ Existing query
- ☐ Create new query

Paragraph

WRITE
PREVIEW

Write text in the *Markdown* format.

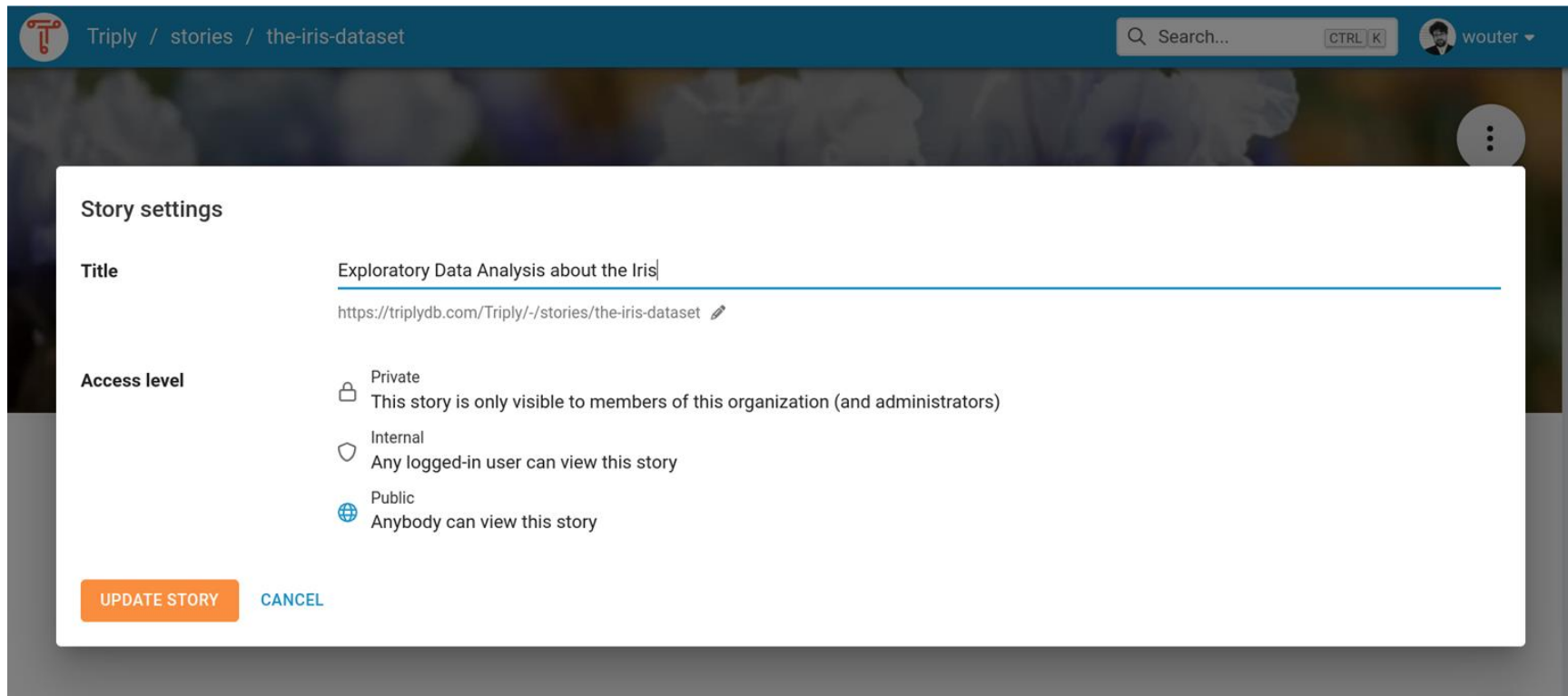
```

graph LR
  person:John -- foaf:knows --> person:Mary

```

CREATE STORY ELEMENT
CANCEL

Set title and banner ([link](#))




Triply / stories / the-iris-dataset

Search... CTRL K wouter

Story settings

Title

Exploratory Data Analysis about the Iris

<https://tripllydb.com/Triply/-/stories/the-iris-dataset> 

Access level

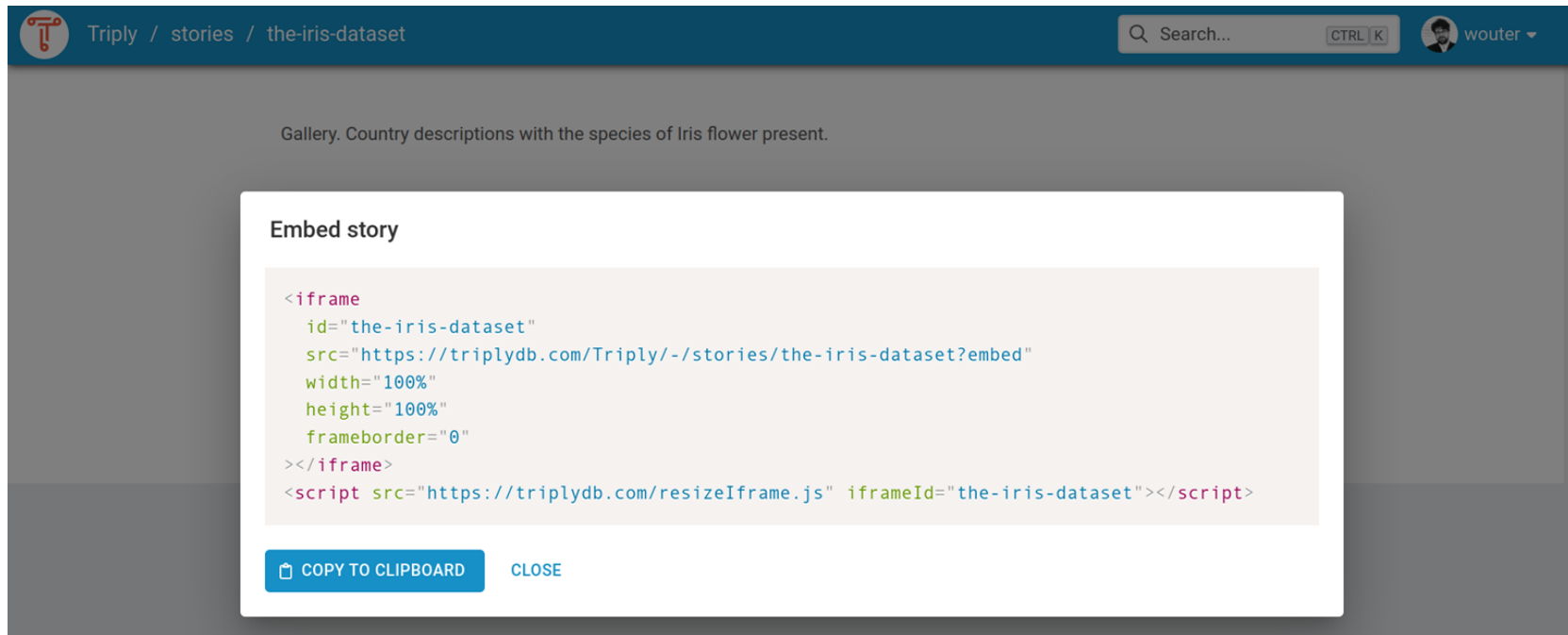
☒ Private
This story is only visible to members of this organization (and administrators)

☐ Internal
Any logged-in user can view this story

☐ Public
Anybody can view this story

UPDATE STORY CANCEL

Include Data Story in another website ([link](#))




Triply / stories / the-iris-dataset

Search... CTRL K wouter

Gallery. Country descriptions with the species of Iris flower present.

Embed story

```
<iframe
  id="the-iris-dataset"
  src="https://trplydb.com/Triply/-/stories/the-iris-dataset?embed"
  width="100%"
  height="100%"
  frameborder="0"
></iframe>
<script src="https://trplydb.com/resizeIframe.js" iframeId="the-iris-dataset"></script>
```

 COPY TO CLIPBOARD CLOSE

Do it yourself

- Create a Data Story that contains your query.

Follow-up / next steps

- Support questions (including bug reports): support@triply.cc
- Documentation: <https://triply.cc/docs>



Thank you for your attention!

